FIG. 1

PROGRAM — 12

16 — TEST CASES → PROGRAM EXECUTION ENVIRONMENT — 14 → ERROR REPORT — 18

FIG. 2

22 — PROGRAM → WEAK STATIC ANALYSIS — 24 → ERROR REPORT — 26

FIG. 3

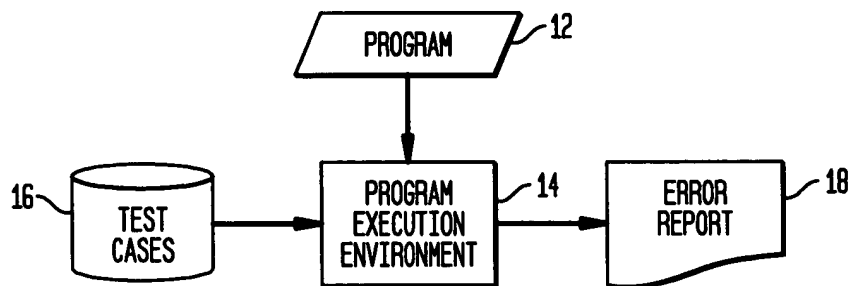32 — PROGRAM → STRONG STATIC ANALYSIS — 34 → ERROR REPORT — 36
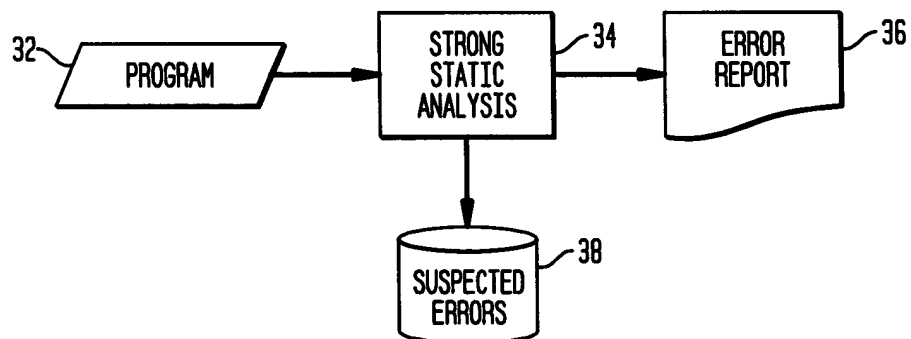
SUSPECTED ERRORS — 38

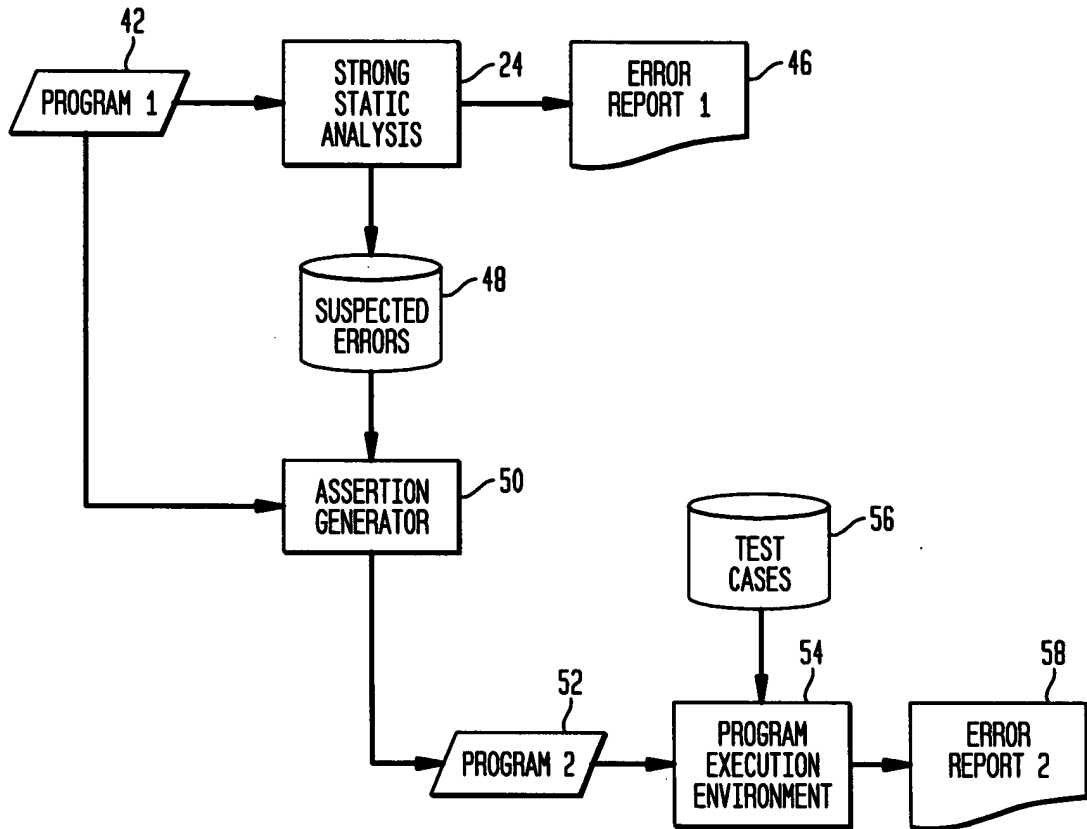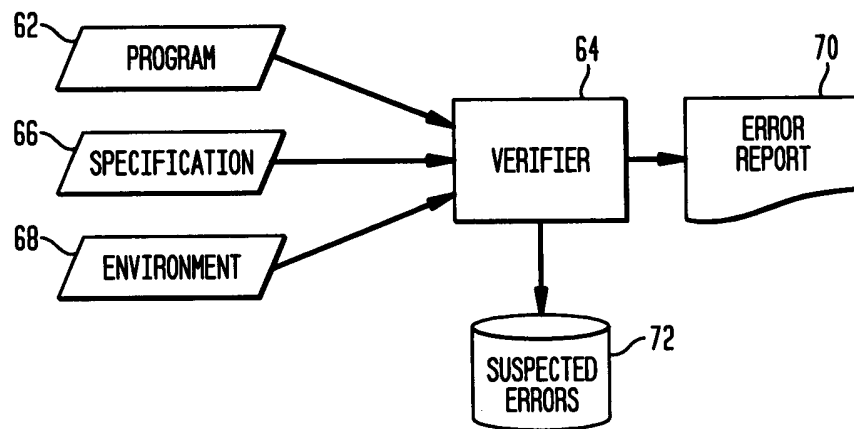*FIG. 4*

FIG. 5

FIG. 6

Example Program 1   ⟋—42

```
int P (int);
int Foo (int A)
{
  int X, Y;
  if  (P(A)) X = 0;
  if  (P(A))  { X = A;  Y = A; }
  else  { L1:  return A/X; }
  L2: return A/(x - Y) ;
}
```

FIG. 7

Example Program 2

                                              ⟋—52

```
int Foo (int A)
{
  int X, Y;
  int Temp1, Temp2;
  if  (Temp1 = P(A)) X = 0;
  if  (Temp2 = P(A)) { X = A; Y = A; }
  else
    {
      if ( Temp1) printf ("division by 0\n");
      if (!Temp1) printf ("uninitialized X\n");
      L1: return A/X;
    }
  if (Temp2) printf ("division by 0\n");
  L1: return A/(X - Y);
```